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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WANG, LIANG CHE A

ART UNIT	PAPER NUMBER
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2155

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DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/530,579

Applicant(s)

MALMKVIST ET AL.

Examiner

Liang-che Alex Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/29/2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-7 have been examined.

#### **Paper Submit**

2. It is hereby acknowledged that the following papers have been received and placed of record in the file:
  - a. **IDS** as received on 07/28/2000.
  - b. Certified copies of the priority documents **have NOT been received**.

#### ***Specification***

3. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.  
  
Appropriate correction is required.

#### ***Claim Objections***

4. Claim 1-7 are objected to because of the following informalities:
  - a. Claim 1, line 3, the word "telecoomuncations" should be changed to "telecommunications."
  - b. Claim 1, line 9, "fixed network (102)", "(102)" should be removed from the claim.

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- c. Claim 1, line 12-13, "said other network" is lack of antecedent basis. However, it is understood as "said another network" mentioned in claim 1, line 7.
- d. Claim 3, line 2, "said other network" is lack of antecedent basis. However, it is understood as "said another network" mentioned in claim 1, line 7.
- e. All dependent claims are objected to as having the same deficiencies as the claims they depend from.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.
7. Claim 5 recites the limitation "it" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-4, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang, US Patent Number 6,058,113, hereinafter Chang in views of Crisler et al. US Patent Number 5,481,537 hereinafter Crisler.
10. Referring to Claim 1, Chang has disclosed a method at a data and telecommunications system (see title) for transmission of data streams between a receiving terminal (item 36, figure 1) and a transmitting terminal (item 32, figure 1) via at least one fixed network (item 31, figure 1) consisting just any numbers of nodes (item 34, figure 1) at which a resource reservation protocol reserves resources in said fixed network for said data stream, (item 52, and col 8 lines 51-54) wherein if the transmission capacity of a node, preferably the node closest to said other network (item 34d is the closest node to receiver 36d, Figure 1)), decreases, and the quality requirement of a specific data stream fails to kept up, said specific data stream is thrown, (Col 8, lines 57-60, ) whereupon said means of said protocol transmits a message which is executed in other nodes where said resource reservations are, to said transmitting terminal (Col 7, lines 34-39), which message includes the steps of:
- a. updating said resource reservation for said specific data stream; (Col 8, lines 57-60, )
  - b. utilizing said resource reservation temporarily for other traffic; (Col 8, lines 57-60, )
  - c. throwing said specific data stream until different is stated. (Col 8, lines 57-60)

However, Chang has not explicitly taught there is another network consisting links with large variation in bandwidth and quality between the transmitting and receiving terminals.

Crisler has taught a radio network (see Figure 1) consisting of links with large variation in bandwidth and quality (Col 1 lines 26-61, channel bandwidth and quality inherently exist in a radio wireless network.), at which a resource reservation protocol reserves resources for data streams (Col 2, lines 33-42)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Chang to include another network consisting links with large variation in bandwidth and quality between the transmitting and receiving terminals.

A person with ordinary skill in the art would have been motivated to make such change because Chang stated the communication devices (transmitter and receiver) are preferably computer-based devices (Col 3 lines 14-19), and it is conventionally known that link 35 in Chang's Figure 1 could be any kinds of connection that enable the communications between item 31 and item 32, including radio wireless network. And Crisler described resource reservation protocol reserves resources for data streams through a radio wireless network. (Figure 1 and Col 2 lines 33-42)

11. Referring to claim 2, Chang in views of Crisler has taught an invention as described in claim 1, Chang has further taught wherein that if the transmission capacity in said node increases and the quality requirement for said specific data stream is fulfilled, said specific data stream shall be transmitted again, (Col 8, lines 57-60,) at which said node by

means of said protocol transmits a message to said second node, (Col 9, lines 42-45)

where said resource reservations are, towards said transmitting terminal (Col 7, lines 34-

39, which message (item 330, Figure 5) includes the steps of :

a. updating said resource reservation for said specific data stream; (Col 11 lines 3-31)

b. using said resource reservation for said specific data stream. (Col 11 lines 3-31)

12. Referring to claim 3, Chang in views of Crisler has taught an invention as described in claim 1, and Crisler has taught said another network is the radio network including the at least one radio channel (see Figure 1).

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Chang to include a radio network including at least one radio channel.

A person with ordinary skill in the art would have been motivated to make such change because Change stated the communication devices (transmitter and receiver) are preferably computer-based devices (Col 3 lines 14-19), and it is conventionally known that link 35 in Chang's Figure 1 could be any kinds of connection that enable the communications between item 31 and item 32, including radio wireless network. And Crisler described resource reservation protocol reserves resources for data streams through a radio wireless network. (Figure 1 and Col 2 lines 33-42)

13. Referring to claim 4, Chang in views of Crisler has taught an invention as described in claim 3, Chang has further taught wherein that said node constitute an interface towards the receiver, at which said receiver sets the limit regarding how many data streams that

can be transmitted from said transmitting terminal to said receiving terminal. (Col 4 lines 54-63)

Chang has not explicitly taught said radio channel sets the limit regarding how many data streams can be transmitted to the receiving channel.

However, Chang in views of Crisler have disclosed that the link between the node 34D and the receiving device 36D could be a radio network (see paragraph 10.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Chang to have said radio channel sets the limit regarding how many data streams can be transmitted to the receiving channel.

A person with ordinary skill in the art would have been motivated to make such change because radio channel is one of the factor that the receiving device may change the quality of service due to the bandwidth and quality problem of said radio network. And, Chang stated receiving terminals could change resource reservation based on the traffic (Col 8 lines 57-60.) Therefore, radio channel sets the limit for the quality of service, which allows Chang to make such modification.

14. Referring to claim 6, Chang in views of Crisler has taught an invention as described in claim 1, Chang has further taught wherein that, at multicast traffic,(see figure 1, multiple receiving terminals for multicasting) said specific data stream in said another node as close to said transmitting terminal as possible, is thrown without other receiving terminal of the multicast traffic being affected, (Col 8, lines 57-60, this feature is inherently exist, because once the reservation refreshes, the said specific data stream is thrown, and the new data stream is taking over without affect other traffic.) whereby said fixed network is



not loaded by said specific data stream, which in any case is thrown at said node lacking capacity (Col 8, lines 57-60, this feature is inherently exist, because once the reservation refreshes, the said specific data stream is thrown, the fixed network then no longer loaded with the said specific data stream.)

15. Referring to claim 7, Chang in views of Crisler has taught an invention as described in claim 1, Chang in views of Crisler already taught wherein said node in said fixed network which constitutes radio interface towards said radio channel in paragraph 13. Chang has further taught the receiving terminal receives momentary information about which transmission capacity that is available on said radio channel, (Col 8 lines 65- Col 9 line 2) at which said node by means of said protocol reserves resources in said fixed network regarding the transmission capacity of said radio channel (Col 8 lines 57-65.)
16. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in views of Crisler and in further views of Jon Crowcroft, "*Hierarchical Coding*," *Hypertext* <http://www.cs.ucl.ac.uk/staff/j.crowcroft/mmbook/book/node119.html>, herein after Crowcroft. Chang in views of Crisler has taught an invention as described in claim 1, and Chang in views of Crisler have not explicitly taught the method could be utilized at hierarchical coding of said data stream.

However, Crowcroft has disclosed that hierarchical coding is ideal for transmission over packet switched networks where the network resources are shared between many traffic streams and delays, losses and errors are expected. (Hierarchical Coding, lines 1-5)

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It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Chang and Crisler to have the method utilized at hierarchical coding of said data streams.

A person with ordinary skill in the art would have been motivated to make such change because the environment of Chang's invention is a network where the resources are shared between many traffic streams (col 2 lines 15-44), which is the same environment that Crowcroft has disclosed to implement hierarchical coding, (Crowcroft, Hierarchical Coding, lines 1-5.)

### *Conclusion*

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).
18. Rikkinen et al, US Patent Number 6,031,827, has taught a method for radio resource control.
19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (703) 305-3391. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.

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20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sheikh Ayaz R can be reached on (703) 305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.
21. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Liang-che Alex Wang  
January 10<sup>th</sup>, 2003

LW



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